Scientific Integrity

February 2021

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Scientific Integrity Official

EPA

- SI Policy Overview
- How we work
- Allegations and Advice
- Expectations of Managers
- Restoring Science EO
- POTUS Memo on SI

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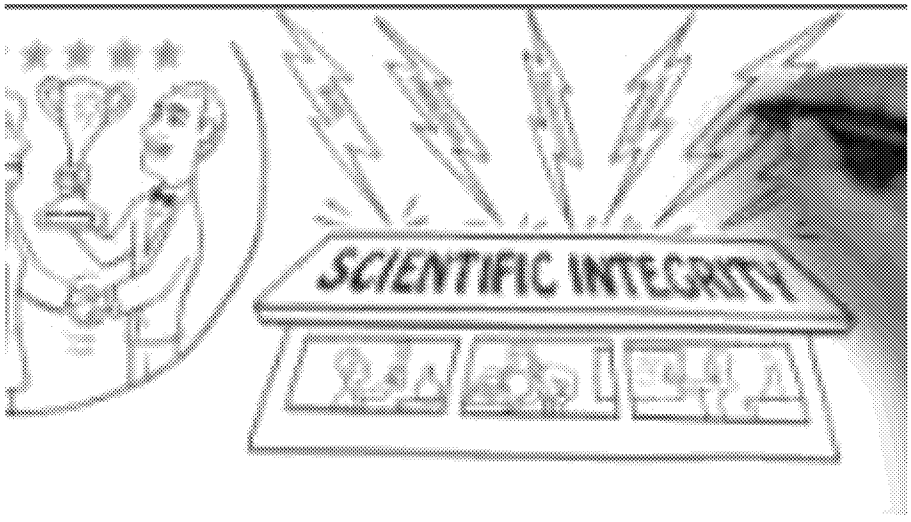
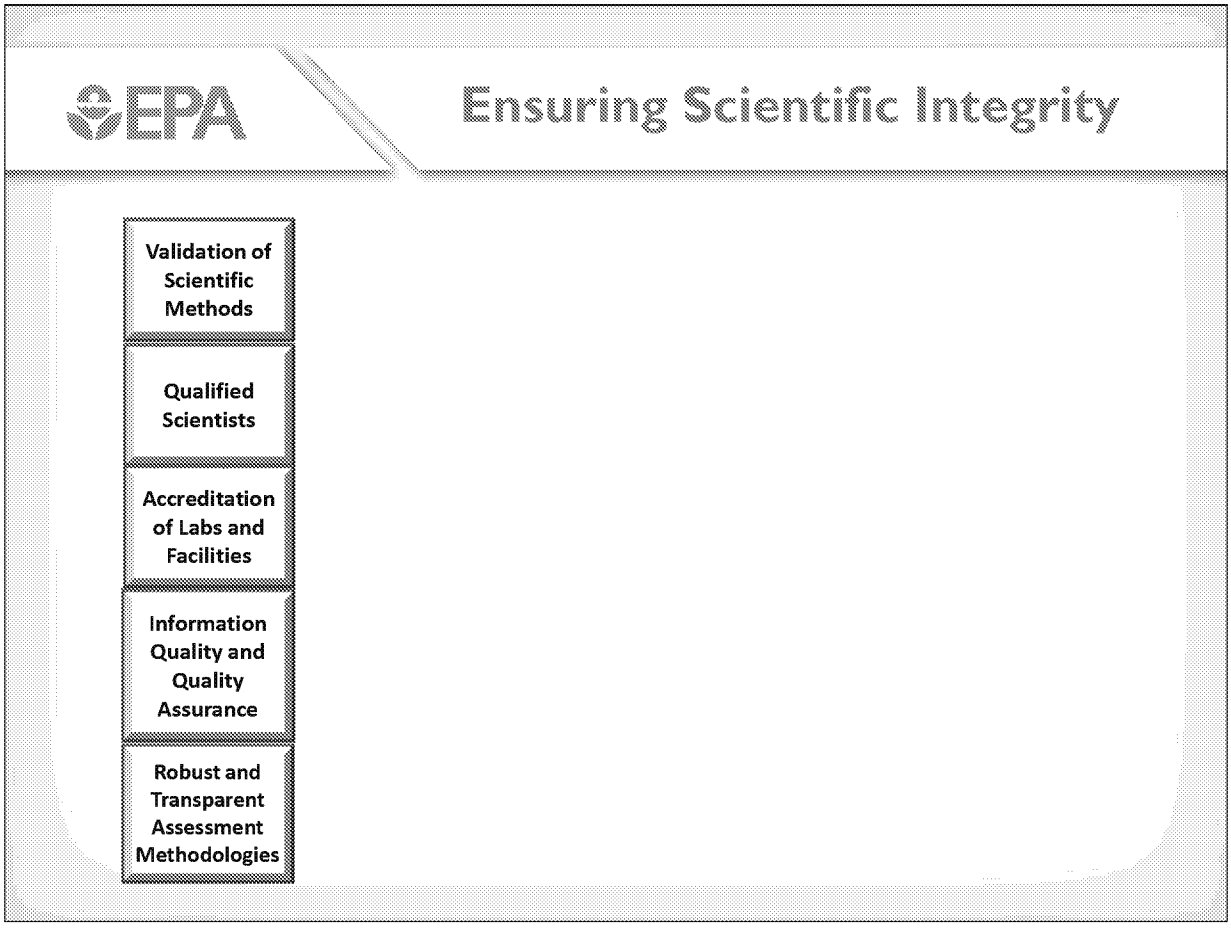
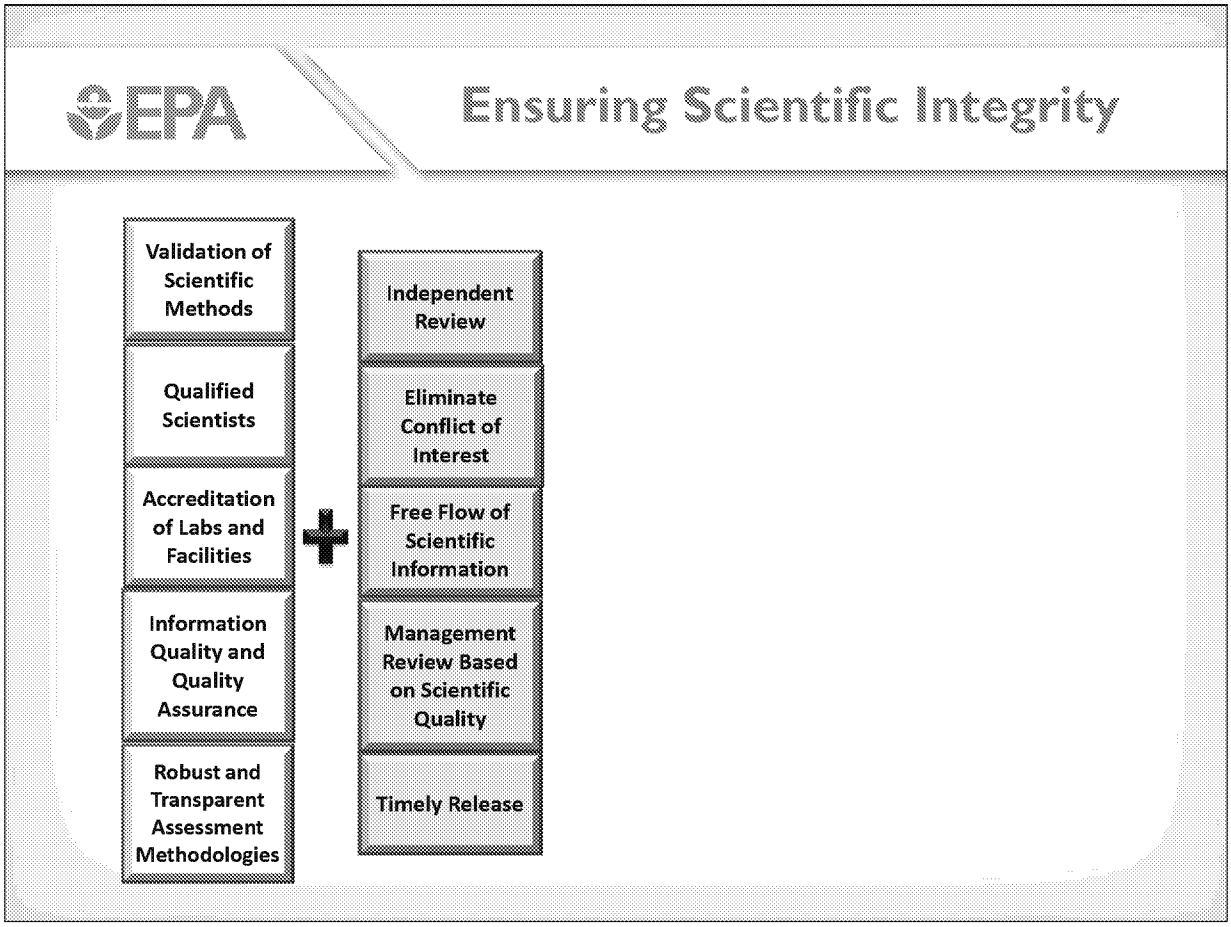
Scientific Integrity Whiteboard Video





Leading to:
Public trust in Agency science
Scientific conclusions are not influenced by their policy implications
EPA is able to do its best work



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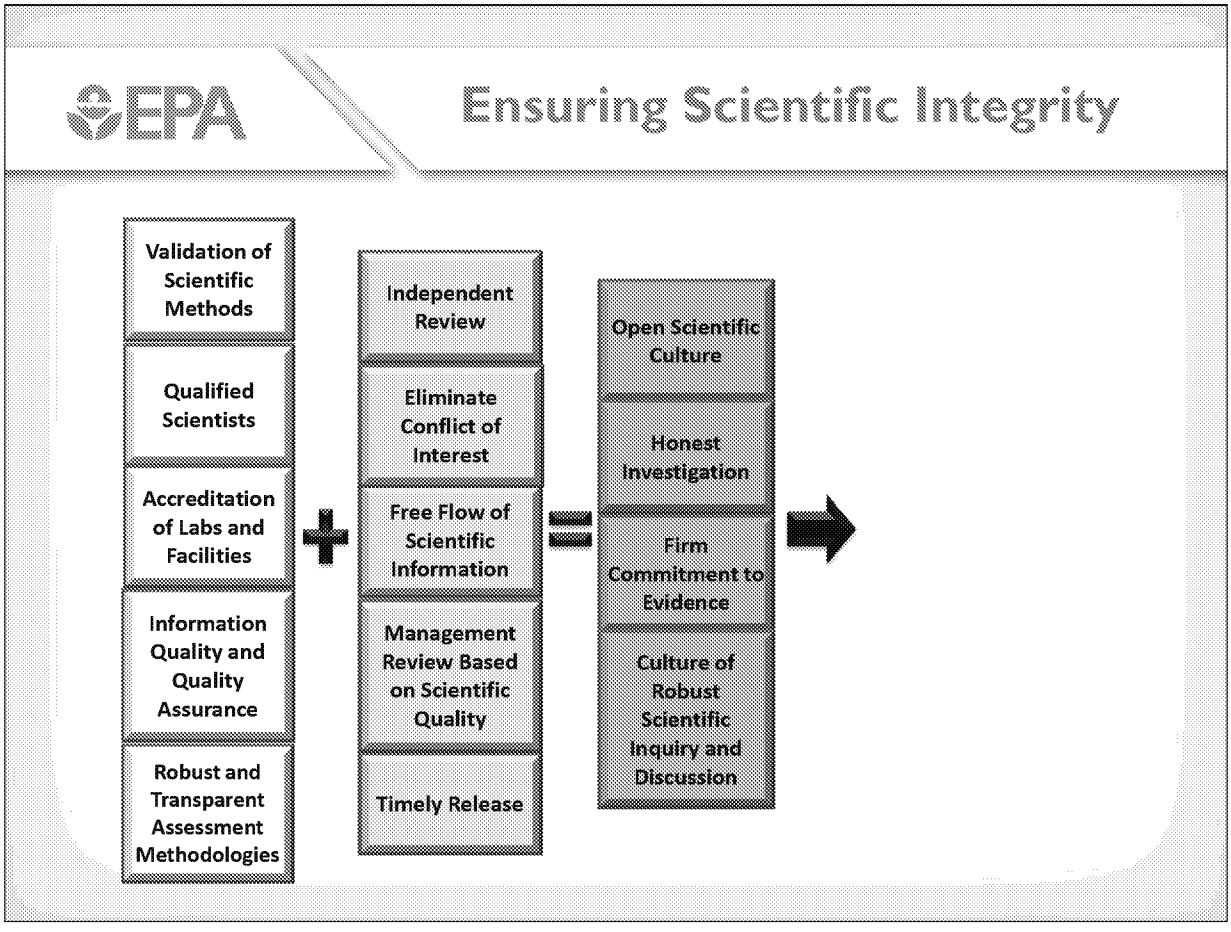

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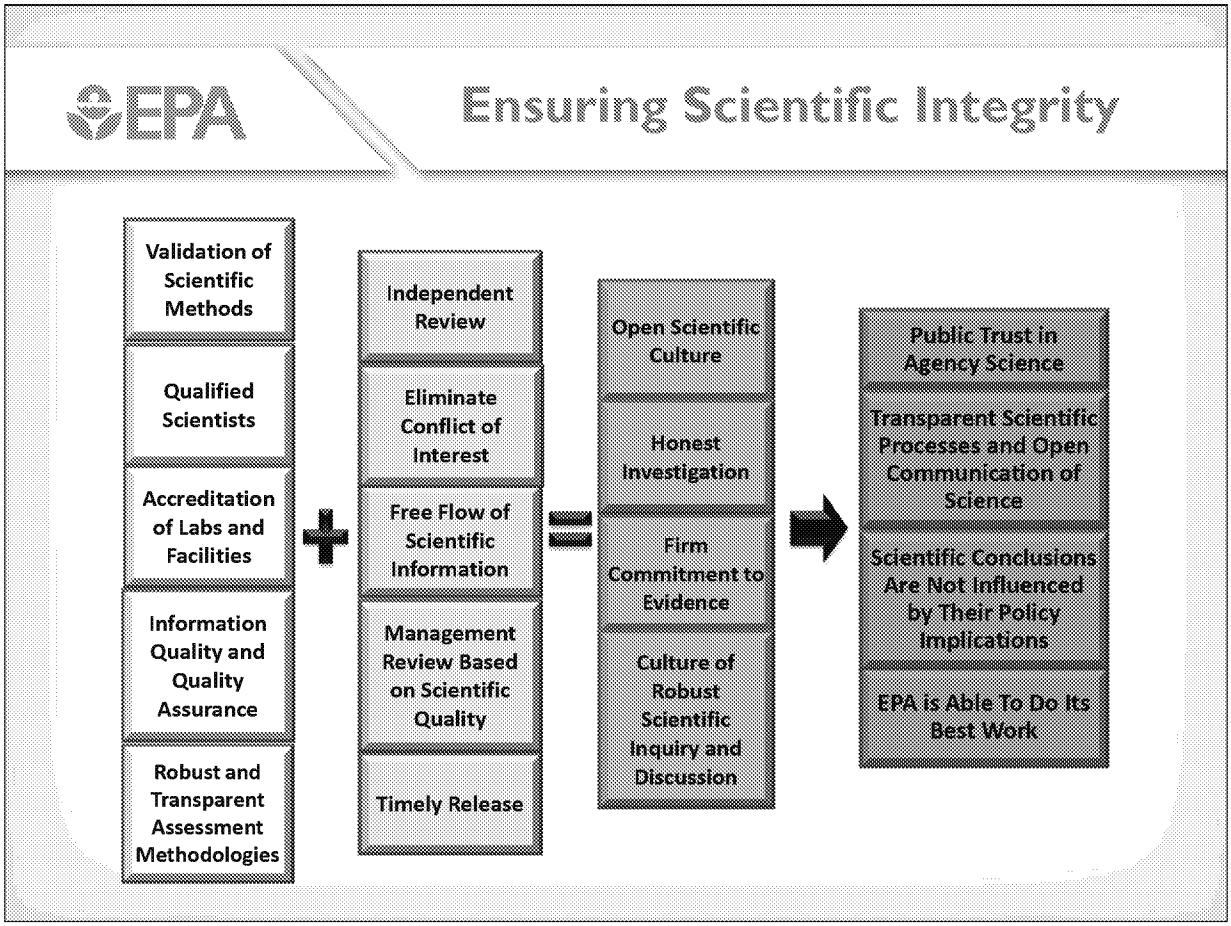

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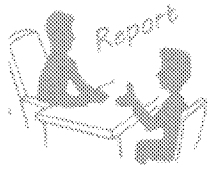
When Something Seems Wrong

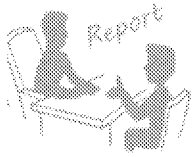


What should you do?

- Advice
- Allegation

Requesting Advice

- Advice
  - First conversation
  - Is it scientific integrity?
  - Next steps are clear
  - Informational conversation
  - Not high profile or directly linked to a threat to public health



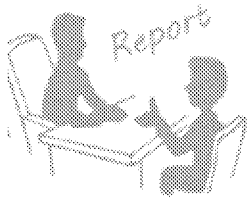
Reporting an Allegation

- Based on current information – it would be a violation of the Policy
- The submitter is aware of our limitations confidentiality and wishes to proceed

- Advice is not appropriate
  - Previous advice was not effective or effective enough
  - Urgent or High Profile
  - Expertise or support of the Scientific Integrity Committee is warranted

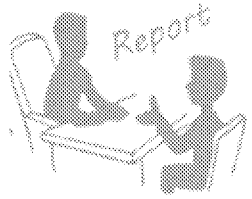
Come Early – Don't Wait for a Crisis!

EVEN DURING THE PANDEMIC



- **Office Hours**
  - Wednesdays from 11:30 to 1:30 ET
  - RRB 41141
  - 202-564-1687 (office)
  - Ex. 6 Personal Privacy (PP) mobile – use this now!)

When Someone Comes to You



What should you do?

- Listen
- Be supportive
- Ask yourself – if everything I am told is true – is this a violation of the Policy?
- Not sure – ask us!!

Ex. 5 Deliberative Process (DP)

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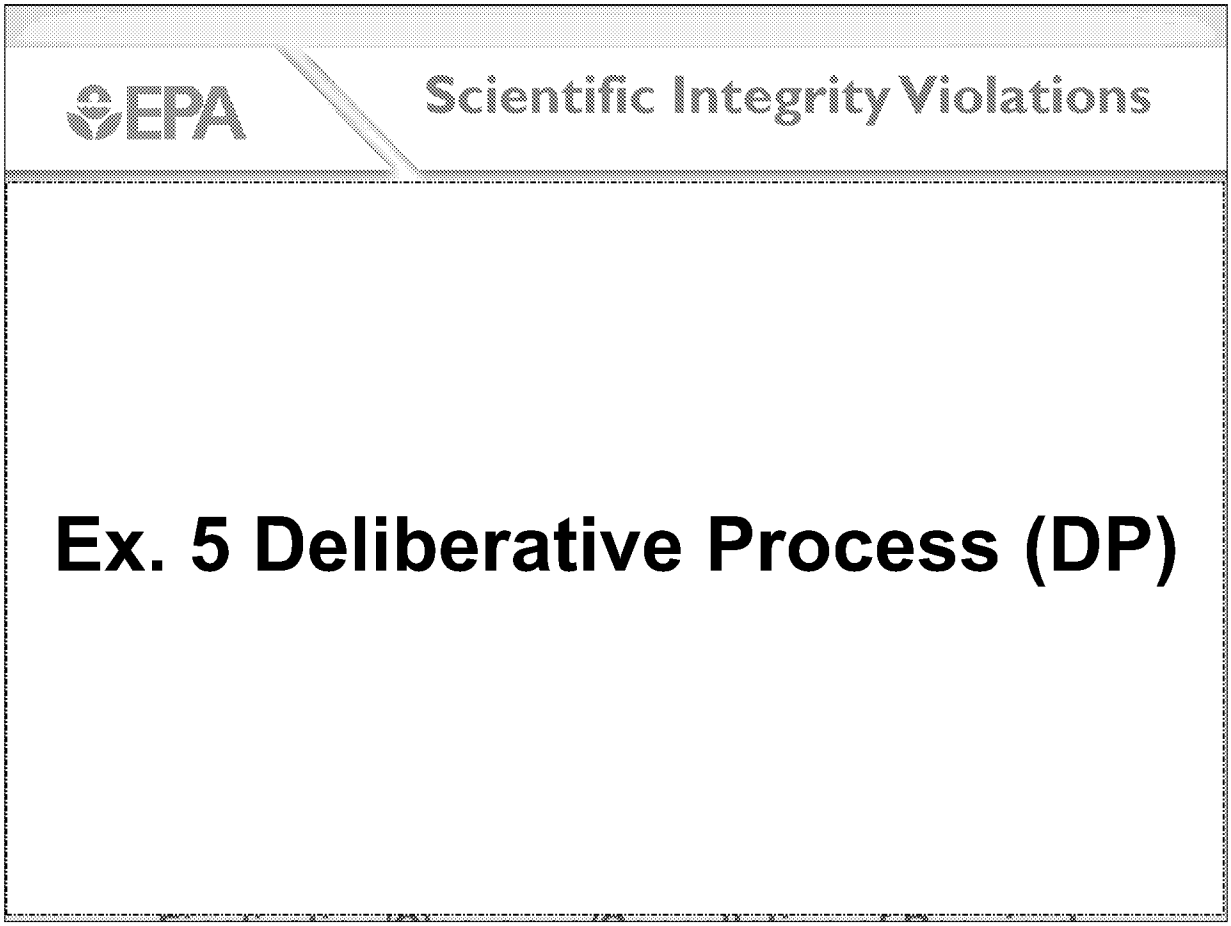
What does it look like when we do not adhere to professional standards or our applicable statutes -

Ex. 5 Deliberative Process (DP)



What does it look like when we do not adhere to professional standards or our applicable statutes -

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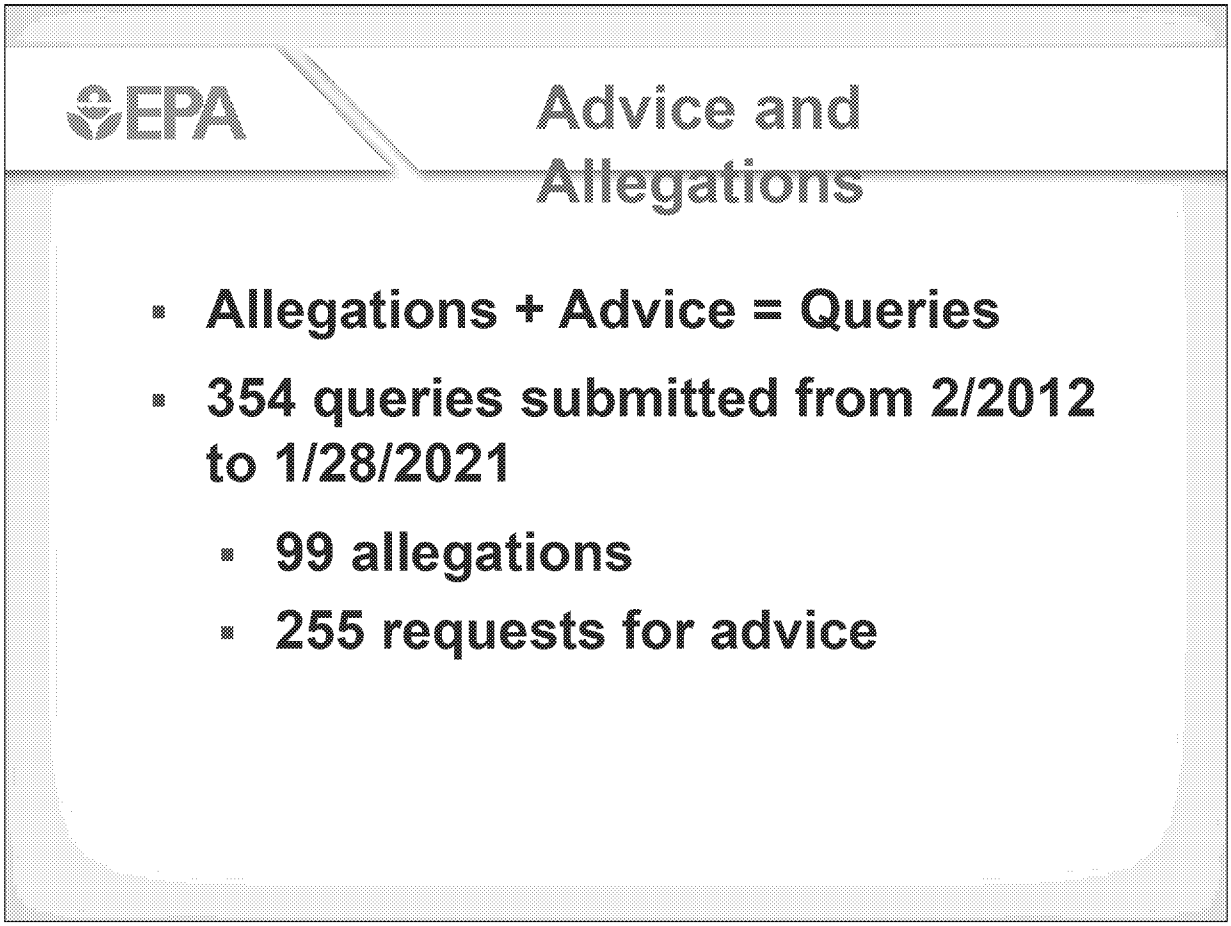
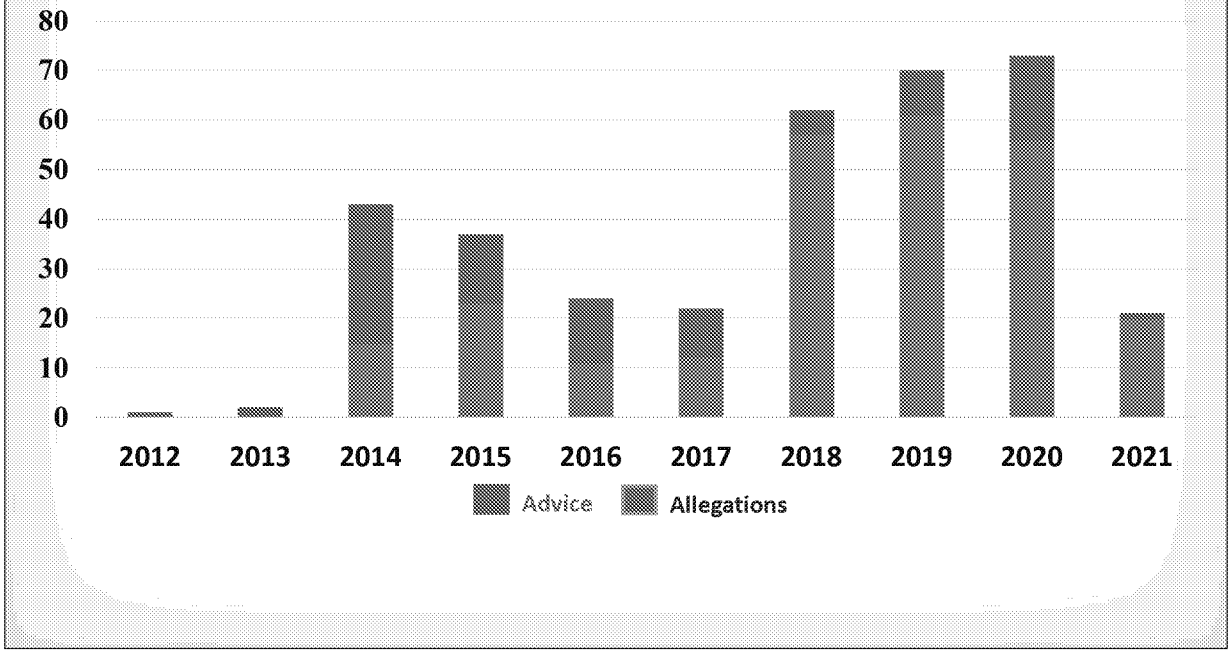
Not Scientific Integrity

Ex. 5 Deliberative Process (DP)



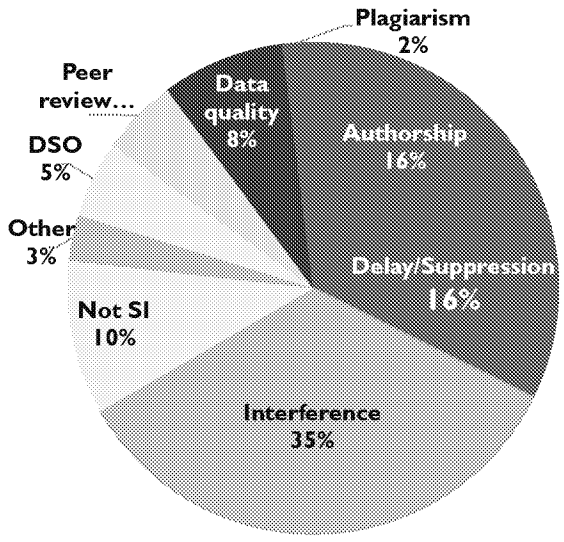
We take what comes to us

Queries FY2012 thru 1/28/2021



Allegations by Topic

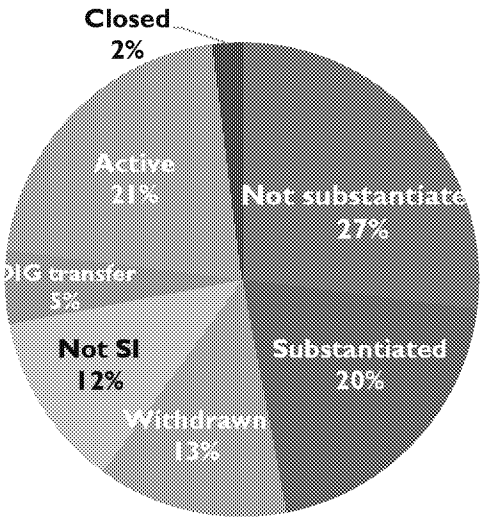
FY2012-20



N = 99

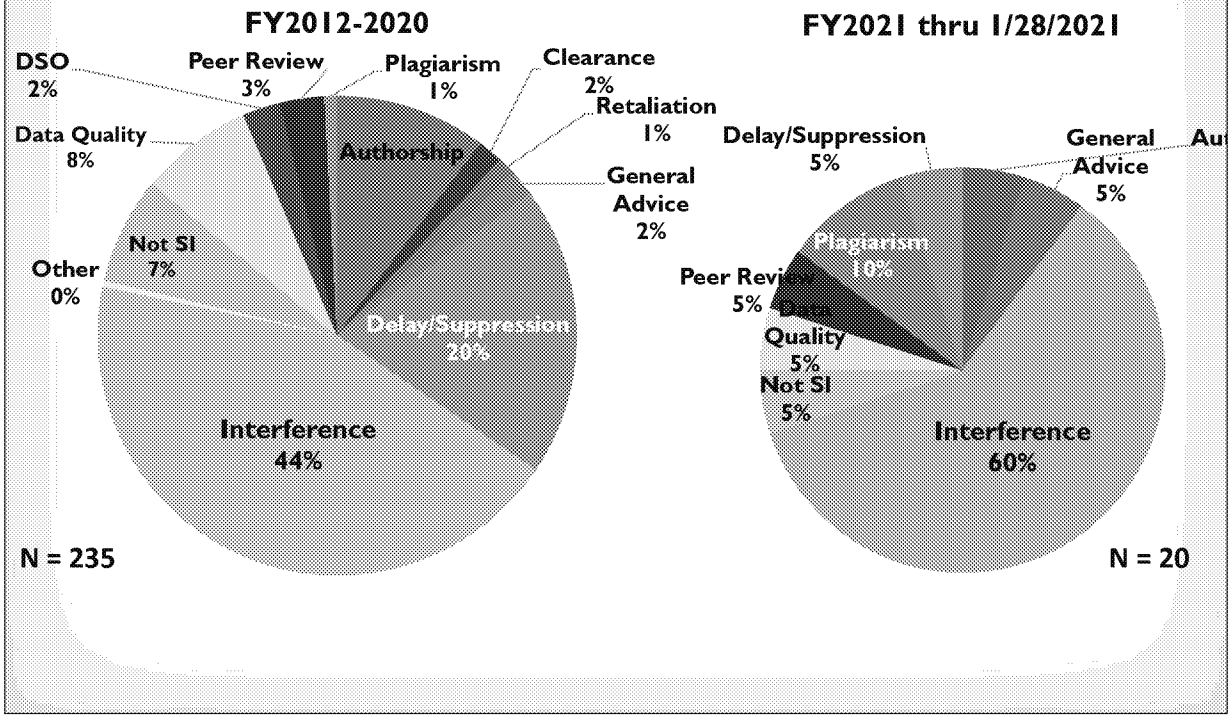
Ex. 5 Deliberative Process (DP)

Status of Allegations: FY2012 - 1/28/2021



N = 99

Advice by Topic



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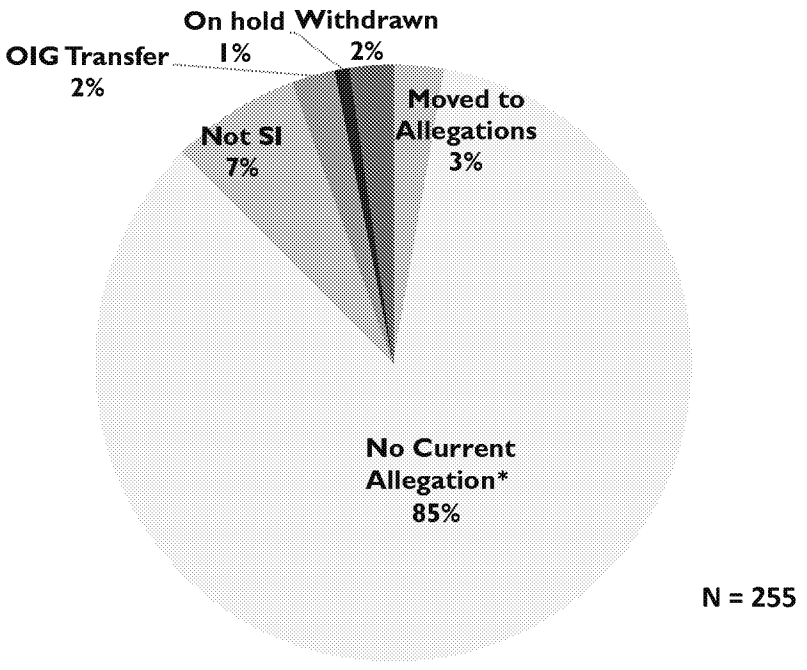
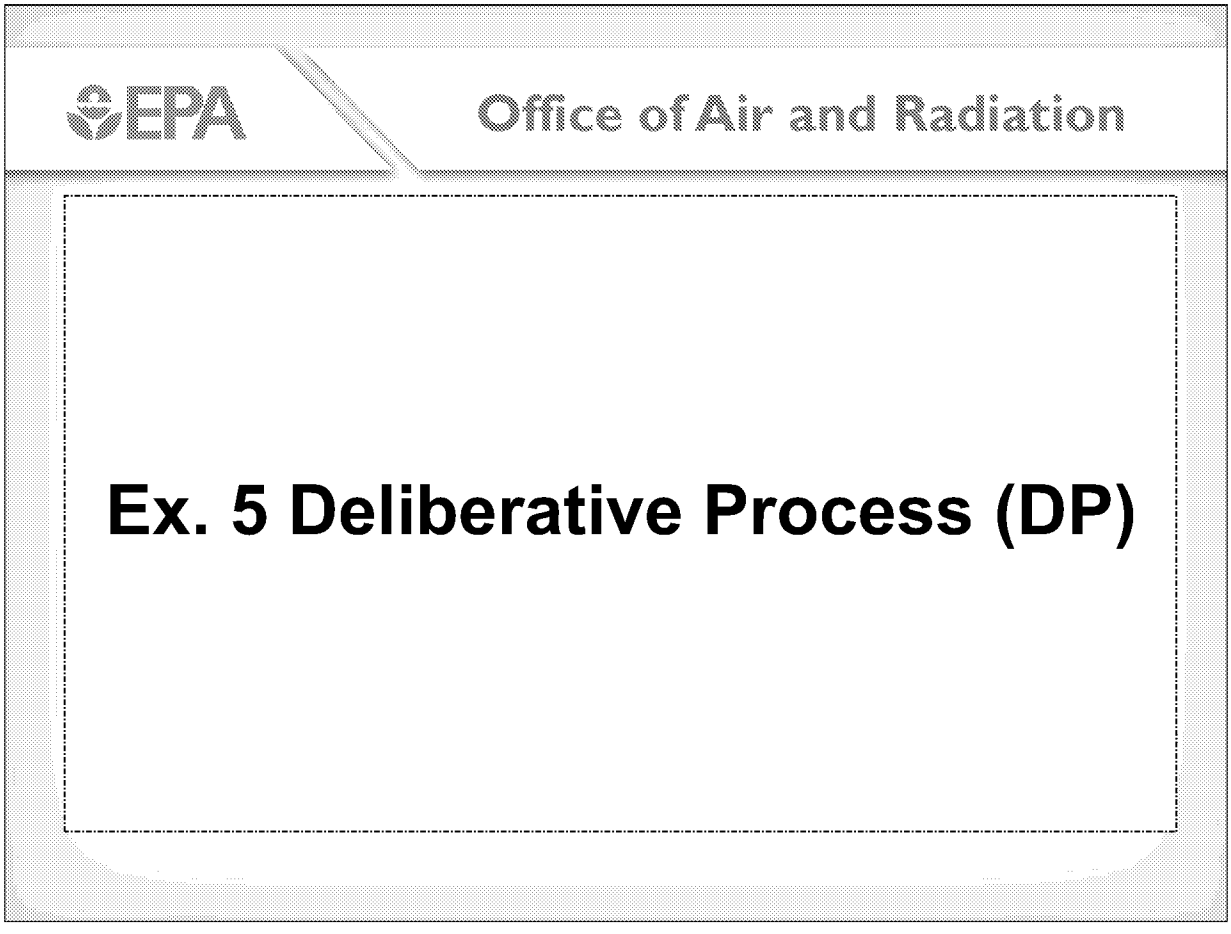
Advice by Subject's Office

Ex. 6 Personal Privacy (PP)

Status of Advice: FY2012 - 1/28/202





Ex. 5 Deliberative Process (DP)

You and Scientific Integrity

- Upholding a culture of scientific integrity
- Encourage good policies and practices
- Leading the way
- Mediating negative influences on scientific integrity

You and Scientific Integrity

- **Upholding a culture of scientific integrity**
  - Read the Policy
  - Build awareness of reporting channels
  - Support individuals who report
  - Hold members of your unit whose behavior is not in keeping with the Scientific Integrity Policy accountable

You and Scientific Integrity

- **Encourage Good Policies and Practices**
  - Honesty and rigor
  - Transparency and timeliness
  - Prohibit the suppression, altering or otherwise impeding of the timely release of scientific findings
  - Do not tolerate the intimidation or coercion of scientists to alter science
  - Give scientists the right of last review
  - Support their use of the personal views exception

You and Scientific Integrity

- **Lead the Way**
  - Talk about scientific integrity
  - Promote and reward discussions which include various perspectives
  - Include scientific integrity in performance reviews
  - Hire staff with the appropriate scientific credentials and encourage professional development
  - Listen openly, judge fairly and act accordingly

You and Scientific Integrity

- **Mediating Negative Influences on Scientific Integrity**
  - **Be a barrier between political, ideological, or economic influence and scientists, analysts, and their work**
  - **Recognize inappropriate influences and speak up or seek help to resolve them**
  - **Support transparency and open data access**

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Tips and Tools

- Early Attention
- Differing Scientific Opinion Policy
- Whistleblower Protections
- Transparency
- Documentation

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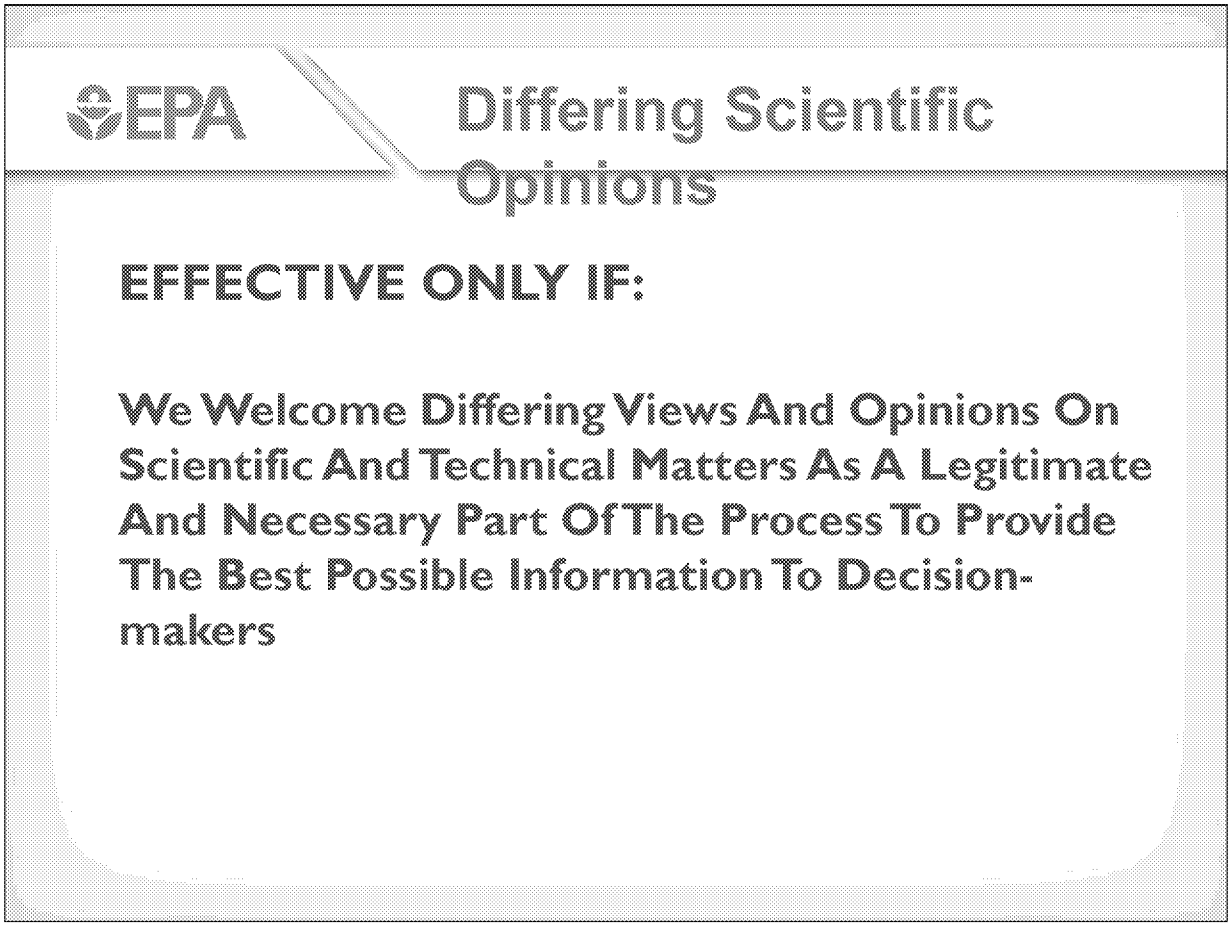
Why?

Safeguarding Science through Vigorous Internal Discussion to Protect Human Health and the Environment

- Consider all pertinent evidence and explore various plausible explanations of that evidence
- Vigorous internal discussion of different points of view helps to anticipate counter-arguments and alternative positions that could arise during peer review, public comment, and litigation
- Challenging and improving ideas guards against inadequate science and flawed analysis

How Does it Work?

1. Encourage constructive, open, inclusive, and respectful discussions
2. Add subject matter experts as needed to enrich the discussion
3. Seek help from managers
4. When internal deliberations fail add to scientific peer review charge and make the report from the peer review available for decision makers' consideration
5. When no peer review occurs, a factual concise summary can be included in the deliberative documents presented to decision makers.
6. Seek assistance from Scientific Integrity Team as needed



2 of many policies –

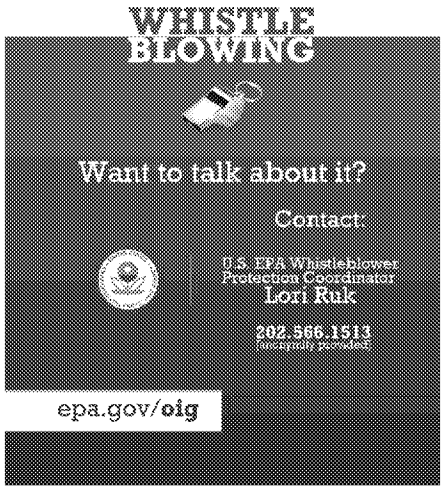
The Scientific Integrity Policy . . .
"Reaffirms the expectation that all Agency employees . . . welcome differing views and opinions on scientific and technical matters as a legitimate and necessary part of the scientific process [§IV]."
"Mandates the Scientific Integrity Official, with input from the Deputy Scientific Integrity Officials, to develop a transparent mechanism for Agency employees to express differing scientific opinions [§IV.A.1]."

DSO – How do we make it safe?

- Support employees who express DSOs
- Protect confidentiality to reduce further retaliation
- Provide opportunities to raise concerns early and informally
- Scientific Integrity Policy "extends whistleblower protections to all EPA employees who …express a differing scientific opinion"
- Prevent and address retaliation

DSO – How do we make it safe?

- Receive and respond appropriately to employees who express a DSO and experience negative consequences
  - Channels for reporting retaliation
    - Whistleblower Ombudsman
    - Office of the Special Council



DSO – How do we make it safe?

- **Management and Leadership Commitment**
  - Aware of the importance and benefits of DSOs
  - Recognize DSOs that have made a positive difference
  - Fully understand what constitutes retaliation
  - Be sure everyone knows retaliation is unacceptable

Tips and Tools

- Early Attention
- Differing Scientific Opinion Policy
- Whistleblower Protections
- Transparency
- Documentation

You and Scientific Integrity

- Ensure:
  - That EPA science is high quality and independent
  - That your unit conveys what the science says and performs work in a manner that is in keeping with the Scientific Integrity Policy regardless of internal and or external pressures
  - That scientific conclusions are independent of policy implications

Intranet Web Portal

Home > Scientific Integrity

What is Scientific Integrity?

Advice & Allegations

Policies & Resources

Scientific Integrity at EPA

Annual Report & Other Publications

Outreach & Training

Ex. 6 Personal Privacy (PP)

Executive Order on Protecting Public Health and Restoring Science to Tackle the Climate Crisis

…Federal Government must be guided by the best science and be protected by processes that ensure the integrity of Federal decision making…

To that end, this order directs all executive departments and agencies to immediately review and, as appropriate and consistent with applicable law, take action to address the promulgation of Federal Regulations and other actions during the last 4 years that conflict with these important national objectives…

Ex. 5 Deliberative Process (DP)

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Executive Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking

Starting from January 27, 2021

- 60 days – heads of agencies shall review and update their websites
- 90 days - heads of agencies shall review their current and future needs for independent scientific and technological advice from Federal advisory committees, commissions, and boards.
- 300 days - agencies must review any agency reports, data, and other agency materials issued or published since January 20, 2017, that are inconsistent with the principles set forth in this memorandum and that remain in use by the agency or its stakeholders

BIG QUESTIONS

1. Have we documented all the instances of when scientific integrity policies have not been followed?
2. Have violations of our SI Policy disproportionately harmed Federal scientists and researchers that are from groups historically underrepresented in science, technology and related fields or impeded the equitable delivery of the Federal Government's programs?
3. Which Agency policies, processes, and practices issued or published since January 20, 2017, prevent the best available science and data from informing the agency's evidence-based and iterative development and equitable delivery of policies and programs?
4. How effective are our practices regarding engagement of Federal scientists, as well as contractors working on scientific matters for agencies, with news media and on social media?
5. What are the gaps in current scientific-integrity policies related to emerging technologies, such as artificial intelligence and machine-learning, and evolving scientific practices, such as citizen science and community-engaged research?

Professional Development Opportunity

Think about the professionals on your team and who might benefit from spending 6 months to a year working with us on SI